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FOREIGN AGRICULTURE

P.L. 480's Contribution to INDIA'S ECONOMIC DEVELOPMENT

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U.S. agricultural products have made a major contribution to India's economic development during the past 4 1/2 years.

India has been the principal recipient of agricultural commodities under Title I of Public Law 480. Such commodities have constituted one-fourth--almost \$2 billion worth--of the total market value of agricultural products covered by Title I, Public Law 480 agreements through 1960.

The first agreement was signed in August 1956, and was intended to run for 3 years, but food deficits became more serious and all of the food commodities were imported in less than 2 years. Another agreement was negotiated in June 1958.

Since then, several Title I agreements have been signed to provide India with needed agricultural commodities which the United States has in abundance. The most important of these agreements was the one signed with India May 4, 1960. This was the largest in the history of Public Law 480--\$1.3 billion market value, plus certain ocean transportation costs. It was for a 4-year period calling for delivery of 16 million tons of wheat and 1 million tons of rice.

Table 1 summarizes all commodities programed for India under Title I agreements and supplemental agreements, while Table 2 shows shipments through December 31, 1960.

Cumulative U.S. exports of these products under Title I, II and III of Public Law 480 and Section 402 of the Mutual Security Act for the same period (August, 1956 through December, 1960) are summarized in Table 3.

These exports have contributed an average of 74 calories per day per capita to the Indian diet for the period, or the equivalent of about 3.5 percent of the daily per capita caloric intake in India. Each installment of the 4-year Title I agreement of 4 million metric tons of wheat and 250 thousand metric tons of rice will provide 90 calories daily per capita. In any one year this would provide for the annual population growth of 2 percent and an additional 2 percent for increased consumption.

Aside from providing much of India's expanded need for food supplies, the sale of Public Law 480 agricultural commodities provides local currency used in India's economic development. Of the \$1,345.2 million in market value and ocean transportation (including only the amount to be financed for the first year of the 4-year agreement) 85 percent has been earmarked for use by India for economic development during the Second and Third 5-Year Plan periods. This amount includes \$369.9 million for grants, \$112.6 million for loans to private enterprise in India, and \$667.8 million in loans to the Government of India.

Out of total Public Law 480 rupee-funds earmarked for loans and grants, \$78 million was expended by June 30, 1960. However, \$316 million was obligated as of April 1961 for 10 development projects in India. Total obligations and expenditures by grants and loans from Public Law 480 funds are summarized in Table 4. Selected examples of projects contributing to India's agricultural and industrial development follow.

River Valley Development: Twelve valley development projects are under construction in various States of India. These will provide irrigation for additional food production, and dams for control of floods, and hydroelectric power. From 8 of these projects alone over 12 million kilowatts of electricity will be produced and some 9 million acres will be benefited by irrigation.

The Uttar Pradesh Agricultural University: This university has been aided by a \$2 million grant and is being patterned after the U.S. land grant colleges with the assistance of educators from the University of Illinois. This institution was inaugurated in November of 1960, with Prime Minister Nehru and the former Ambassador Bunker officiating.

The Refinance Corporation: This corporation was established in accordance with the first Title I agreement with India that reserved the rupee equivalent of \$55 million for relending to private enterprise through established banking facilities. For this purpose, the Government of India established the Refinance Corporation as a private limited company whose capital subscriptions have been made up by the Reserve Bank of India, State Bank of India, Life Insurance Corporation of India and the larger Indian scheduled banks. To be eligible for refinancing, loans made by the participating banks must be to medium-sized industrial plants for periods from 3 to 7 years for the purpose of providing increased production within the private sector.

Public Law 480 is only one of several sources of U.S. aid to India, but it has been an important multi-purpose element in the country's economic development. It has enabled India to buy, in rupees, the additional food and fiber its perennially low foreign exchange balances would not otherwise have permitted. The availability of these commodities has sustained the Indian diet at levels of caloric intake that would not have been possible without using scarce foreign exchange. And the funds generated by the Public Law 480 sales have gone mostly into economic development programs.

Prospects for Agricultural Development in India

Accomplishments under the Second 5-Year Plan have been significant. The national income has been increasing by more than 3.5 percent a year. Industrial production moved up 30 percent during the first 4 years. Investment in the economy has reached a level of from 10 to 11 percent of total national income. India's total investment rate is now over 3 times the level of 10 years ago.

Agricultural targets probably will not be fully achieved when final data are in. It is expected that food grain production in 1961 will be 77.2 million metric tons or 4.7 million tons short of target goal. A summary of all other agricultural targets compared with anticipated production for 1961 is contained in Table 5.

Estimated total investment that was to have been made in the Second 5-Year Plan when it ended March 31, 1961 is about \$14.2 billion or double that of the First 5-Year Plan. Investment in the public sector was 54 percent of the total and was allocated as follows: 11.5 percent agriculture, minor irrigation, community development and cooperation; 18.7 percent major and medium irrigation and power; 23.0 percent industry and minerals; 28.1 percent transportation and communications; and 18.7 percent social services (Table 6).

The Second Plan fell short of its total outlay target by one year or 20 percent of the total outlay planned. This amount (\$4.2 billion) is being carried forward into the Third Plan.

The central purpose of the Third 5-Year Plan is to develop industry and agriculture more intensively. The Plan period is considered by India to be the first-half of the "critical decade ahead" during which India seeks to achieve and consolidate its "take-off" point for a self-sustaining economy.

The investment planned for the draft Third 5-Year Plan is \$21.4 billion, of which \$13.0 billion will be in the public sector and \$8.4 billion in the private sector. Investment during the next 5 years will be equivalent to the total invested during the last 10 years. The planned allocations of government investment in the public sector are: 14.1 percent agriculture and minor irrigation, 21.8 percent major and medium irrigation and power, 24.1 industry and minerals, 20.0 percent transport and communications, and 20.0 percent social services and inventories.

The target for food grain production under the Third 5-Year Plan is set at 102 to 107 million metric tons, for an increase of about 33 percent over the expected production in 1960-61. The other agricultural targets and percentage increases over expected 1960-61 production are summarized in Table 5.

In relation to India's requirements, these targets are not unrealistic, particularly if appreciable allowance is made for increased per capita consumption. However, the projected food grain target may be unduly optimistic. During the last 8 years, the average increase in food grain production has been 2.6 percent a year (Table 7). If production of 102 million metric tons of food grain is to be attained in 1965-66, it will require an average increase rate of over 4.9 percent. It seems unlikely that a rate of this magnitude can be attained during the Plan period, unless some unusual changes occur in India's current level of technology or greater inputs are utilized than are now planned.

Even though food grain production has been rising, domestic production has not met domestic requirements over the last decade. Therefore, India has imported almost 4 million tons of food grains annually over the last 4 years to meet domestic requirements (Table 8).

Table 1.--India: Commodity composition of Title I, Public Law 480 agreements and supplements signed August 1956 through December 1960, and commodities programmed through June 1961

Commodity	: Agreements signed : : through December 1960 :		: Commodities programed : : through June 1961 1/ :	
	: Quantity :	: Value :	: Quantity :	: Value :
	: 1,000 : Million :		: 1,000 : Million :	
	: <u>Metric tons</u> :	: <u>dollars</u> :	: <u>Metric tons</u> :	: <u>dollars</u> :
Wheat and flour	: 26,391 :	: 1,630.6 :	: 14,391 :	: 906.8 :
Feed grains	: 832 :	: 28.7 :	: 832 :	: 28.7 :
Rice	: 1,582 :	: 165.3 :	: 660 :	: 78.3 :
Cotton	: 211 :	: 126.6 :	: 211 :	: 126.6 :
Tobacco	: 4 :	: 8.5 :	: 4 :	: 8.5 :
Nonfat dry milk	: 24 :	: 3.5 :	: 24 :	: 3.5 :
Fats and oils	: 4 :	: 1.0 :	: 4 :	: 1.0 :
Market value	: -- :	: 1,964.2 :	: -- :	: 1,153.4 :
Ocean transportation	: -- :	: 347.7 :	: -- :	: 201.4 :
Market value including	: : :	: : :	: : :	: : :
ocean transportation	: -- :	: 2,311.9 :	: -- :	: 1,354.8 :

1/ Includes expected shipments during the first year of the \$1.3 billion, 4-year agreement signed May 1960: \$241 million wheat, \$29 million rice, and \$49 million ocean transportation.

Table 2.--India: Title I, Public Law 480 shipments, August 1956 through December 31, 1960

Commodity	: Quantity :	: Value :
	: 1,000 : Million :	: : :
	: <u>Metric tons</u> :	: <u>dollars</u> :
Wheat	: 12,217 :	: 735.0 :
Corn	: 276 :	: 14.0 :
Grain sorghums	: 140 :	: 5.8 :
Rice	: 517 :	: 63.0 :
Cotton	: 197 :	: 112.3 :
Tobacco	: 3 :	: 6.4 :
Nonfat dry milk	: 21 :	: 3.4 :
Total	: 13,371 :	: 939.9 :

Table 3.--India: Selected agricultural imports from the United States under Public Law 480 and Section 402 of the Mutual Security Act, and per capita share, August 1956 through December 31, 1960

Commodity	Public Law 480				Mutual Security Act		Public Law 480 and Mutual Security Act		Per capita share 1/			
	: Title III :				: Security Act :		: Aug. 1956 to Dec. 1960 : average :		: Per year : Per day :			
	Title : Title : Dona- : Barter :	II : tions :	Section 402 :	Dec. 1960 :	Aug. 1956 to Dec. 1960 :	average :	Per year :	Per day :	Kg. :	Calories :		
	Metric tons											
Wheat	12,217	10	60	6	606	12,899	2,866	6.9	66.2			
Corn	276	--	22	--	--	298	66	.2	2.0			
Grain sorghums	140	--	--	--	--	140	31	.1	2.0			
Rice	517	10	29	--	--	556	124	.3	3.0			
Cotton	197	--	--	13	21	231	51	.1	--			
Tobacco	3	--	--	--	--	3	0.67	2/	--			
Nonfat dry milk	21	3	127	1	--	152	34	.1	1.0			
Total	13,371	23	238	20	627	14,279		7.7	74.2			

^{1/} Average Indian population of 416 million obtained by averaging 1958-1960 population.
^{2/} Less than .05.

Table 4.--India: Public Law 480 rupee loans and grants by project
as of April 1961

Project	Grant	Loan	Total
	Million <u>dollars</u>	Million <u>dollars</u>	Million <u>dollars</u>
River Valley Development (includes 12 power and irrigation sub-projects)	12.4	166.2	178.6
Refinance Corporation	--	55.0	55.0
Malaria Eradication	16.8	--	16.8
Uttar Pradesh Agricultural University	2.1	--	2.1
India Institute of Technology Kanpur	.1	--	.1
Indian Investment Center	.5	--	.5
Industrial Finance Corporation	--	21.0	21.0
Sharavathi Power Project	--	14.6	14.6
Industrial Credit and Invest- ment Corporation	--	21.0	21.0
All-India Institute of Med. Sciences	6.1	--	6.1
Total obligated	38.0	277.8	315.8
Total expended <u>1/</u>	.6	77.8	78.4

1/ As of June 30, 1960.

Table 5.--India: A summary of agricultural targets and accomplishments for the 5-Year Plans

Targets and accomplishments	Unit	1955-56		1960-61		1965-66	
		Production	Target	Production	Target	Production	Target
		1950-51	1955-56	1960-61	1965-66	1960-61	1965-66
Agricultural Production							
Food grains	Mil.M.T.	4/53.1	62.3	4/66.9	81.9	77.2	102-107
Cotton	Mil.bale	2.9	4.3	4.0	6.5	5.5	7.2
Sugarcane-gur	Mil.M.T.	5.7	6.4	6.1	7.9	7.3	9.1-9.3
Oilseeds	Mil.M.T.	5.2	5.5	5.7	7.7	7.3	9.3-9.7
Jute	Mil.bale	3.3	5.4	4.2	5.5	5.5	6.5
Tea	Thou.M.T.	278.0	--	308.0	--	329.0	386
Tobacco	Thou.M.T.	261.0	--	303.0	--	305.0	330
Wool	Thou.M.T.	27.0	--	29.0	--	33.0	41
Agricultural Services							
Net area irrigated	Mil.acres	51.5	--	56.2	85.4	70.0	90.0
Land reclamation (additional area)	Mil.acres	--	--	2.7	--	1.2	1.0
Nitrogenous fertilizer (in terms of nitrogen)							
Produced	Thou.M.T.	9.0	--	80.0	--	210.0	1,016
Consumed	Thou.M.T.	56.0	--	107.0	--	366.0	1,016
Phosphatic fertilizer (in terms of P ₂ O ₅)							
Produced	Thou.M.T.	9.0	--	12.0	--	71.0	406-508
Consumed	Thou.M.T.	7.0	--	13.0	--	68.0	406-508

1/ Revised targets for Second 5-Year Plan.

2/ Apparent preciseness of figures results from converting long tons to metric tons. E.g. food grain target is 100 to 105 long tons or 102 to 107 metric tons.

3/ Percents computed from original data in long tons for agricultural targets.

4/ Estimates of production adjusted for changes in statistical coverage and methods of estimation up to 1956-57.

5/ 392 pound bales.

6/ 400 pound bales.

7/ Relates to calendar year.

Table 6.--India: Investment and outlays under three 5-Year Plans 1951-66

Sector	: First Plan : 1951-56	: Second Plan : 1956-61	: Proposed : Third Plan : 1961-66
	: Million : <u>dollars</u>	: Million : <u>dollars</u>	: Million : <u>dollars</u>
Public sector:	:	:	:
Investment	: 3,276	: 7,665	: 13,020
Current outlay	: --	: 1,995	: 2,205
Plan outlay	: 4,116	: <u>1/</u> 9,660	: 15,225
Private sector investment	: 3,780	: 6,510	: 8,400
Total investment	: 7,056	: 14,175	: 21,420
Total plan outlay	: 7,896	: 16,170	: 23,625

1/ Represents likely outlays over the 5 years.

Table 7.--India: Production of food grains and pulses, 1949-50 through 1960-61, and Second and Third 5-Year Plan goals

Crop Year	: Thousand metric tons
1949-50	: 58,539
1950-51	: 53,087
1951-52	: 53,549
1952-53	: 59,526
1953-54	: 69,736
1954-55	: 68,306
1955-56	: 66,873
1956-57	: 69,856
1957-58	: 63,022
1958-59	: 76,716
1959-60	: 72,902
1960-61 (estimated)	: 77,220
1960-61 (Second Plan revised goal)	: 81,900
1965-66 (Third Plan suggested goal)	: 102,000 - 107,000

Table 8.--India: Imports of cereals, 1950-1960

Year	Total imports				Public Law 480, Title I		
	Rice	Wheat & flour	Other	Total	Wheat	Rice	Total
	- - - - - 1,000 Metric tons - - - - -						
1950	359	1,430	371	2,160	--	--	--
1951	761	3,063	964	4,788	--	--	--
1952	734	2,551	641	3,926	--	--	--
1953	178	1,771	146	2,095	--	--	--
1954	613	200	8	821	--	--	--
1955	269	442	--	711	--	--	--
1956	330	1,113	--	1,443	147	--	147
1957	748	2,892	--	3,640	2,547	197	2,744
1958	396	2,709	138	3,243	1,915	--	1,915
1959	295	3,536	109	3,940	3,166	--	3,166
1960	699	4,374	53	5,126	4,050	248	4,298

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